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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/596,825	06/26/2006	Takeaki Itsuji	03500.119.202	1972
5514 7590 05/07/2008 FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112				
EXAMINER				
RAMDHIANE, BOBBY				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
05/07/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/596,825

Applicant(s)

ITSUJI ET AL.

Examiner

BOBBY RAMDHANIE

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Period for Reply
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 06/30/2006, 07/31/2007
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-7, are drawn to a sensor and a sensing apparatus.

Group II, claim(s) 8 & 9, are drawn to a method of analyzing or identifying a property of an object.

1. The inventions listed as Groups I & II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common technical feature, the sensor and sensing apparatus of Group I does not make a contribution over the prior art of record. See Pepper et al (US2002/068018).

2. During a telephone conversation with Mr. Harburger on 04/04/08 a provisional election was made without traverse to prosecute the invention of Group I, claims 1-7. Affirmation of this election must be made by applicant in replying to this Office action. Claims 8 & 9 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

1. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Pepper et al (US20020068018).

3. Applicants' claims are toward a sensor and a sensing apparatus.

Regarding Claims 1-7, Pepper et al discloses a sensor comprising:

A). A waveguide for allowing an electromagnetic wave to propagate therethrough and disposing an object at a plurality of positions thereof (See Figure 7 Item 12 – waveguide); and B). A detecting portion for detecting the electromagnetic wave which has interacted with the object at the plurality of positions and propagated through the waveguide, wherein a property of the object is analyzed or identified

based on information obtained from the electromagnetic wave detected by the detecting portion (See Figure 7 Item 16 & [0132]). Additional disclosures included: Claim 2: further comprising a disposing means for disposing the object at the plurality of positions (See [0076]; the lattice of the microcavity defines the disposing means for); Claim 3: Wherein the disposing means comprises one of a drop means for dropping the object at the plurality of positions, a hole pattern, a groove pattern, a protrusion shape pattern, and a pattern including a hydrophilic portion and a hydrophobic portion (See [0076]; the lattice of the microcavity); Claim 4: Wherein the disposing means periodically dispose the object (See [0076], the lattice sets up a period disposition of the objects). Claim 5: The sensor set forth in Claim 1 provided in plurality on a substrate (See [0118]; LIGA is a technique that allows for multiple guides to be deposited onto a substrate); Claim 6: The sensor set forth in claim 1; and a storage portion for storing an information associated with the property of the object, wherein the information obtained from the electromagnetic wave detected by the detecting portion is compared with the information stored in the storage portion to analyze or identify the property of the object (See [0098]; computer which is required for the computer simulation); Claim 7: A sensing apparatus comprising: the sensor set forth in claim 1; and means for coupling the electromagnetic wave into the waveguide for allowing the electromagnetic wave to propagate therethrough (See 0040; Surface-enhanced Raman Spectroscopy & Figure 7 Item 13).

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4. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagel et al (WO02/04928; An English translation may be found as US20040058339. Rejections will be referenced to the English translation).

5. Applicants' claims are toward a sensor and a sensing apparatus.

Regarding Claims 1-7, Nagel et al discloses a sensor comprising:

A). A waveguide for allowing an electromagnetic wave to propagate therethrough and disposing an object at a plurality of positions thereof (See [0045] – waveguide); and B). A detecting portion for detecting the electromagnetic wave which has interacted with the object at the plurality of positions and propagated through the waveguide, wherein a property of the object is analyzed or identified based on an information obtained from the electromagnetic wave detected by the detecting portion (See [0031] the radiation is led to the sample by means of appropriate ray guides). Additional disclosures included: Claim 2: further comprising a disposing means for disposing the object at the plurality of positions (See [0081]; dropping); Claim 3: Wherein the disposing means comprises one of a drop means for dropping the object at the plurality of positions, a hole pattern, a groove pattern, a protrusion shape pattern, and a pattern including a hydrophilic portion and a hydrophobic portion (See [0081] & Figures 4, 5a, & 5b); Claim 4: Wherein the disposing means periodically dispose the object (See [0081]); Claim 5: The sensor set forth in Claim 1 provided in plurality on a substrate (See [0058]; array of waveguides); Claim 6: The sensor set forth in claim 1; and a storage portion for storing an information associated with the property of the object, wherein the information obtained from the electromagnetic wave detected by the

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detecting portion is compared with the information stored in the storage portion to analyze or identify the property of the object (See [0094 & 0095]; implicitly a computer is required for recording the data for these graphs as well as generating the graphical plots of Figure 7a & 7b; the computer anticipates this claim); Claim 7: A sensing apparatus comprising: the sensor set forth in claim 1; and means for coupling the electromagnetic wave into the waveguide for allowing the electromagnetic wave to propagate therethrough (See [0031]; ray guides).

Telephonic Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bobby Ramdhanie, Ph.D. whose telephone number is 571-270-3240. The examiner can normally be reached on Mon-Fri 8-5 (Alt Fri off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Bobby Ramdhanie, Ph.D./
Examiner, Art Unit 1797
/B. R./

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797